

BIOLOGICAL SCIENCES DEGREE: Environmental Biology Emphasis rev Fall 2008

GENERAL EDUCATION CURRICULUM (See Undergraduate Bulletin for full description of GEC)

GEC 01. Written and Oral Communication (6 hrs) Credit Hours

01. ENG 101	Composition One	3
02. ENG 102	Composition Two	3

GEC 02. Basic Science and Mathematics (11 hrs)

Science Requirement (8 hours)

01. Take 2 science courses with labs		
BSC 110/L*	Principles of Biological Science I & Lab	3/1
BSC 111/L*	Principles of Biological Science II & Lab	3/1

*This particular GEC course is required for this major.

Mathematics Requirement (3 hours)

02. Select 1 course**:		
MAT 314 OR	Calculus for Arts and Science	3
MAT 167	Calculus I with Analytical Geometry	3

Calculus is required for this major. Students may enroll in Calculus if the ACT mathematics subtest score is ≥ 26 ; otherwise, they must take prerequisite courses, typically College Algebra (MAT 101) and/or Trigonometry (MAT 103). Entering freshmen with an ACT mathematics subtest score of ≤ 16 must take Intermediate Algebra (MAT 099) during the first semester. Students with an ACT mathematics subtest score of 17-19 are **strongly encouraged to take Intermediate Algebra before taking College Algebra. Students may take Trigonometry if the ACT mathematics subtest score is ≥ 24 or if they have a grade of C or better in College Algebra.

MAT 314 is the *non-majors* Calculus course, recommended for students in the Department of Biological Sciences.

GEC 03. Global History and Culture (12 hrs)

Social Sciences Requirement (3 hrs)

01. Select 1 course:		
ANT101	The Human Experience	3
GHY 101	World Regional Geography	3
SOC 101	Understanding Society	3

Humanities Requirement (9 hrs)

02. ENG 203	World Literature	3
03. Select 2 courses; 1 History is required		
HIS 101	World Civilizations: Beginnings to 1500 C.E.	3
HIS 102	World Civilizations: 1500 to the Present	3
PHI 151	Introduction to Philosophy	3
REL 131	Comparative Religion	3

GEC 04. Aesthetic Values (3 hrs)

01. Select 1 course:		
ART 130	The Art Experience	3
DAN 130	Dance Appreciation	3
MUS 365	The Enjoyment of Music	3
THE 100	Theatrical Expressions	3

GEC 05. Decision-Making and Responsibility (3 hrs)

01. Select 1 course:		
COH 100	Concepts of Wellness	3
ECO 101	Basic Economics	3
PHI 171	Ethics and Good Living	3
PS 101	American Government	3
PSY 110	General Psychology	3

GEC 06. Computer Competency Requirement (3 hrs)

01. Select one course:		
CSS 211	Statistical Methods I	3
CSS 240	FORTTRAN Programming	3
CSS 330	Introduction to Programming	3
CSS 333	Problem Solving Using C, I	3
PSY 360	Introduction to Statistics for the Behavioral Sciences	3

GEC 07. Writing-Intensive Requirement (3 hrs)	Credit Hours
01. ENG 333 (WI) or any upper-level approved WI class <i>Prerequisites: ENG 101 & ENG 102</i>	3
GEC 08. Oral Communication Requirement (3 hrs)	
01. Select 1 course:	
SCM 111 Oral Communication	3
SCM 305 Interpersonal Communication	3
SCM 320 Business and Professional Speaking	3
SCM 330 Small Group Communication	3
GEC 09. Capstone Requirement (Major Area)	
01. BSC 497 Senior Practicum <i>Must be taken Senior Year; ENG 101 & ENG 102 prerequisites</i>	1

PROGRAM CURRICULUM

DEG 01. Major Area of Study Requirements

TOTAL MAJOR HOURS include BSC 110/L, BSC 111/L and courses listed below.

01. BSC 201/L General Zoology & Lab	3/1
02. BSC 226/L General Botany & Lab	3/1
03. BSC 305 Evolution	3
04. BSC 340 Environmental Biology	3
05. BSC 370 Genetics	4
06. BSC 380/L General Microbiology & Lab	3/1
07. Physiology (Select at least 3 hrs)	Credit Hours
BSC 360 Cellular Physiology	3
BSC 431 Plant Physiology	3/1
BSC 450 Comp. Anim. Physiology	3
BSC 451 Mammalian Physiology	3
08. Ecology (Select at least 3 hours)	
BSC 382 Microbial Ecology	3
BSC 435/L Plant Ecology	3/1
BSC 440/L Ecology	3/1
BSC 442/L Behavioral Ecology	3/1
09. Organisms (Select at least 6 hours)	
BSC 407/L Biology of Vertebrates	3/1
BSC 408/L Invertebrate Zoology I	2/1
BSC 409/L Invertebrate Zoology II	2/1
BSC 411/L Entomology	2/1
BSC 413/L Arachnida Biology	2/1
BSC 414/L Ichthyology	2/1
BSC 415/L Biology of Fishes	2/2
BSC 417/L Herpetology	3/1
BSC 418/L Avian Biology	3/1
BSC 419/L Mammalogy	2/1
BSC 421/L Marine Invertebrate Zoology	3/3
BSC 426/L Introduction to Mycology	3/1
BSC 427/L Introduction to Phycology	2/1
BSC 429/L Comp. Morphology of Plants	3/1
BSC 430/L Aquatic & Marsh Plants	2/1
BSC 433/L Taxonomy of Local Flora	2/2
BSC 434/L Dendrology	2/2
BSC 455/L Animal Behavior	3/1
BSC 458/L Marine Ichthyology	3/3
BSC 459/L Marine Mammals	3/2
10. Community and Ecosystem (Select at least 3 hours)	
BSC 406 Biogeography	3
BSC 436/L Conservation Biology	3/1
BSC 441/L Pop. & Community Ecology	2/1
BSC 443/L Freshwater Biology	3/1
BSC 444/L Limnology	2/1
BSC 445/L Marine Biology	3/1
11. BSC 497 Senior Practicum	1

DEG 02. Additional Requirements (25 hours)

01. CHE 106/L General Chemistry I	3/1
02. CHE 107/L General Chemistry II	3/1
03. CHE 255/L Organic Chemistry	3/1
04. CHE 256/L Organic Chemistry	3/2
05. PHY 111/L General Physics I	3/1
06. PHY 112/L General Physics II	3/1

DEG 03. Minor Area of Study (Optional)

DEG 04. Electives

01. Choose electives as needed. (See Hours to Degree below)

Hours to Degree: 124 hours are needed to graduate with a B.S. in Biological Sciences.

At least 50% of the hours applied to a degree at The University of Southern Mississippi must be earned from a senior college, and 45 of these hours must be in courses numbered 300 or above.

The last 25% of course work must be earned from The University of Southern Mississippi.

The student must earn at least **12 hours** in the major field of study from The University of Southern Mississippi.